Holt McDougal
Larson Algebra 1, Algebra I

Degree of Evidence regarding the Standards for Mathematical Practice:

Limited Evidence

Summary of evidence:

1. **Make sense of problems and persevere in solving them**. Open-ended questions appear occasionally in the sample reviewed. Frequent references to a formulated problem-solving process are made. This resource calls for multiple representations, but it makes no connections among them. Multiple approaches are addressed, but in a separate section, so implementation is up to the teacher. Students have no opportunity for reflection on answers. Overall, there are infrequent and limited open-ended problem-solving opportunities for students.
2. **Reason abstractly and quantitatively**. Many application problems are mixed throughout the practice problems and examples, but the questions are scripted – many leading questions broken into small bits. Algorithms are given followed by examples of how to apply them, and most of the problems have students apply algorithms. There are frequent opportunities for students to represent real-world situations in symbols. Units are included in the application problems, but there is little to no discussion of reasonableness.
3. **Construct viable arguments and critique the reasoning of others**. There are some questions that ask students to explain, but often it is about the process, not a justification. There are limited to no opportunities to make and test conjectures. There is some error analysis in the practice problems. There are few to no communication opportunities between students referenced in the student text or teacher resource. Occasionally, questions ask students for justification (e.g. p. 322 #32 c, #33 c), but there are very limited opportunities for students to justify their thinking.
4. **Model with mathematics**. Students create mathematical models for real-world application problems. There are occasional questions where students make sense of their answer in context of the situation. Rarely, important ideas are modeled with physical models or a lab, but these occur in a separate section, so implementation is up to the teacher. There are many application problems, but often the questions are very narrow. Rarely, models like algebra tiles are used to explain mathematical concepts, but they are in a separate section, so implementation is up to the teacher. Determining reasonableness and revision of methods is not mentioned in the sample reviewed. There is little opportunity for students to revise their results.
5. **Use appropriate tools strategically.** There are graphing calculator activities that explain how to use the graphing calculator (e.g. pp. 222, 331, 650). Some examples and questions are present in the sections that require graphing calculators. In the chapters reviewed, there is no reference to technology other than the graphing calculator. Tools and technology are not used to investigate mathematics in the chapters reviewed. Graphing calculators are referenced frequently in the chapters reviewed, but there is no discussion of advantages or shortcomings of technology.
6. **Attend to precision.** Examples use proper notation and are precise. In the chapters reviewed, examples of precise communication, for example a sample student conversation in the teacher's edition, are not present. Students are given limited opportunities to communicate. There is attention to precision in the examples, but no discussion for students to tackle.
7. **Look for and make use of structure**. Very rarely are patterns used to make generalizations. (separate section – slope-intercept form p. 243) Often rules are given at the beginning of the section, and examples of applying the algorithm follow. Occasionally the resource shows a pattern and makes a generalization for the students (e.g. p. 264, p. 630). There is some connection

to prior learning, but it does not revolve around structure. There is very little to no use of specific examples moving to generalization.

8. **Look for and express regularity in repeated reasoning.** Patterns are rarely used to make generalizations. Rarely if ever are students asked to discover shortcuts from repetitiveness. There are very few if any opportunities for students to generalize a pattern to determine a rule.